# AN EFFECTIVE LEARNING ENVIRONMENT

**A Discussion Paper**
**on**
**STRATEGY 1**
**of**
**ANSWERING THE CHALLENGE**

**JUNE 1991**

Manitoba
Education
and Training

93-00119/

# AN EFFECTIVE LEARNING ENVIRONMENT

A Discussion Paper
on Strategy 1 of
Answering the Challenge

## 1. INTRODUCTION

1.1 Children represent the future; in a unique way, each one will influence what society will be like. They will help determine the cultural values and traditions which must be preserved, as well as determine those which must be re-examined. The manner in which their intellectual and creative potential is developed during childhood and adolescence is a crucial concern to the present and future generations. The educational system has a significant role to play in responding to the developmental needs of students and in preparing students for future responsibilities, particularly as they approach adulthood.

1.2 Characteristics of 14- to 18-Year-Olds

1.2.1 Introduction

The adolescent of today lives in a society undergoing intensive and rapid social, cultural, economic and technological change. As a result of this change, the hold and influence of the past are diminishing, particularly for the adolescent. At the same time, the future is becoming more uncertain and unpredictable, thus causing the adolescent to feel less secure about the future. Relationships between generations have been altered by the rate of social innovation, in particular, the weakening of the roles and functions of the family. The cultural confusion accompanying the shift in beliefs, attitudes, values, mores and standards has created additional stress and conflict (Rice, 1981).

For adolescents, these cultural changes are further complicated by changes in their own development. Adolescence is a time of adjustment and a time for discovering new strengths, abilities and opportunities. It is a time when young people develop a unique sense of their individual identity. Erickson (1963) emphasizes that the adolescent effort to make sense of the self and the surrounding world is not "a kind of maturational malaise," but is a healthy, vital process that contributes to the ego-strength of the mature adult. It is a time when life goals are explored and developed in the context of individual interests, preferences and abilities. It is a time during

which the basic knowledge and skills necessary for success in future studies or for entry into the workplace must be mastered and consolidated. At some point in their development, all adolescents ask themselves if they can "make it" by being productive workers both academically and on the job. This search for identity is closely linked to vocational choice which is influenced by socio-economic status, parental attitudes, schooling, as well as personality (Smart and Smart, 1978).

### 1.2.2 Social and Emotional Characteristics

Socially and emotionally, 14- to 18-year-olds are interested in themselves and their peers. During these years, adolescents develop an increased interest in the opposite sex. They also begin to appreciate that their personalities are shaped by personal traits, beliefs, values and attitudes, and that their motives, actions and feelings are influenced by psychological factors. Many are very idealistic. Learning to deal with their emotions is one of the critical skills for this age group. Entry into the new, more complex environment of high school also results in major changes in peer relationships. Making and keeping friends during high school takes greater effort and is more complicated than during the elementary years. Increasingly, students set more meaningful priorities in choosing friends, looking for loyalty, sensitivity, trust and shared underlying values (Youniss and Smollar, 1986).

### 1.2.3 Physical Characteristics

During this period, physical development gradually levels out with the completion of puberty. Physical development affects how adolescents feel about themselves and others and, therefore, influences social relationships among peers. Adolescents are very conscious of their body proportions and weight. Since rates of maturation vary among adolescents, early or late maturers need reassurance that variations are normal and that late maturers will catch up (Rice, 1981).

### 1.2.4 Intellectual Characteristics

As part of their intellectual development, 14- to 18-year-olds begin to use more abstract and propositional thinking in their school subjects. What becomes more evident in adolescent thinking is "thinking that builds on thinking, that can conceive of all the logical possibilities in a problem. The adolescent at this stage can think

about thoughts, words, ideas, concepts, and hypotheses and [he/she] can do so concerning a wide range of phenomena from the physical world to real and ideal concepts of [himself/herself]" (E. Dulit in Adolescents' Development and Education, ed. R.L. Mosher, 1979). This development may not, however, be consistent across all subject areas. Some students may develop abstract thinking skills in science and mathematics, but not necessarily in language arts and social studies. These students need to be encouraged to represent ideas in terms of hypotheses and possibilities. When confronted with abstract problems, however, teenagers usually respond in much the same way as adults; they reinterpret the problem in concrete terms. While a few adolescents learn to reason formally or abstractly without concrete supports, they are in the minority (Sternberg, 1984). Most adolescents are apt to relate to abstract concepts such as democracy in the concrete terms of classroom dynamics and teacher-pupil relationships.

1.3 Society is in the midst of broad social, economic, technological and cultural change:

a) The family unit, the most traditional source of support, has undergone significant change. By age 18, nearly half of all teenagers will have lived through their parents' divorce, and about 25 percent will have lived in single parent households, often in impoverished conditions (Statistics Canada, 1985). The breakdown of the traditional family unit as a force in society is a fact.

b) In many instances, economic and societal demands on the family unit have forced both parents to be in the workforce, regardless of personal preference. In most cases there is no primary care-giver at home during the day. Most men and two-thirds of women with children are currently in the workforce. In addition, many students work more than ten hours per week during their senior years, leaving less time, energy and commitment for family interaction, school studies or relaxation.

c) The nature of the workplace is changing rapidly. The world of work is characterized by a continued shift from an industrial to an information and service workforce. Correspondingly, employment opportunities in the service and administrative sectors of the economy are outpacing growth in the manufacturing and resource-based sectors of the economy. In addition, the structures of the workplace are changing. Collaborative decision making and other changes involving cooperation and joint ownership for decisions are becoming more common, especially in the more successful and innovative corporations.

d) Technology is playing a major role in almost all segments of the workplace. As more advanced technologies continue to be introduced, the demands for highly skilled and adaptable workers who have the ability to upgrade skills and develop new skills will also escalate. In order to function in the increasingly sophisticated workplace, citizens are required to have enhanced basic skills. Science and technology are becoming increasingly important not only in the workplace but also in everyday life.

e) Information is increasing at a very rapid rate (CASCD, 1989), making it difficult to remain current in a field; consequently, educators will need to rethink what is worth knowing. The key to handling information lies in the concept of "communicative competence"--being able to handle and understand language in many forms, as well as being able to negotiate for new meanings.

f) Canada has become a cultural mosaic with the immigration of people from every continent. Manitoba is becoming increasingly diverse in terms of culture and language. An understanding of one's own culture and that of others is necessary to allow citizens to work together to realize the maximum potential of all.

1.4 In view of these changes, it is essential that Manitobans make good use of their human resources so that they can become more self-reliant. Manitoba's educational system must attempt to prepare students to be more resourceful, more self-reliant, and better able to convert their resources, ideas and knowledge into opportunities for economic development that is sensitive to ecological and environmental issues.

## 2. UNDERLYING PHILOSOPHICAL BASES OF EDUCATION

In view of the changes taking place in society, some of the philosophical bases of education must be examined in order to define an environment conducive to positive learning.

2.1 Schooling is one of the most important common experiences that shapes how a society develops its opportunities and influences how its citizens make their living. Any school's effectiveness is influenced by many forces. As outlined by Vygotsky (1978, in Cole, M.), individual developmental changes are rooted in society and culture. Social and cultural literacy are, therefore, of paramount importance in education. The power of culture is often ignored, despite the fact, as Bowers (1987) suggests, that it is culture which "provides the information codes that regulate our patterns of thought, body language,

use of space, social interaction, rituals, and economic and political systems" (p. 5).

2.2 Schools need to place a high priority on the community in order that students see school not as a separate world or an irrelevant world, but as a place that allows them to learn from the world around them. Recognizing the student's experience and building upon this experience must become a goal of education. In Dewey, Archambault (1964), (in "My Pedagogic Creed"), states:

> much of present education fails because it neglects [the] fundamental principle of the school as a form of community life. It conceives the school as a place where certain information is to be given, where certain habits are to be formed. The value of these is conceived in lying largely in the remote future; the child must do these things for the sake of something else [he/she] is to do; they are mere preparations. As a result they do not become a part of the life experience of the child and so are not truly educative (in Archambault, p. 431).

What this suggests is that education "is a process of living, and not a preparation for future living" (Bruner, 1966, p. 211) because

> one cannot foresee the world in which the child we educate will live. Informed powers of mind and a sense of potency about coping are then the only instruments we can give the child that will be invariant across the transformations of time and circumstance (Bruner, 1966, pp. 221-222).

2.3 A democratic society requires citizens who think critically for themselves, and who are able and willing to freely exchange ideas and opinions with others. A democratic society also requires that citizens participate in determining the rules and goals of their society. Preservation of the basic values and approaches to life that society wishes for its future citizens requires that the school environment embody the procedures and processes of a democratic society. Students, within the limits consistent with age and development, need to be involved in planning their learning experiences and learning environment in school. Social and intellectual responsibility cannot be imparted to students simply by telling them to be responsible; rather, it needs to be cultivated. Teachers cannot simply present material for students to absorb, understand and respect. Students must be treated as thinking and social beings who are a part of a community organized and governed in particular ways.

2.4 Thinking and feeling processes can be taught (Bloom, 1956; Krathwohl, 1964; Kohlberg, 1966; Sternberg, 1981; Guilford, 1959; Taylor, 1968; Taba, 1966) and should be infused into the regular curriculum (Resnick, 1987; Quellmalz, 1987; Bereiter, 1981; Costa, 1985; Beyer, 1985). It is essential to realize, however, that these processes are context bound: "Thinking is stimulated by the problematic, by cognitive conflict. Educative experiences make the child think--think in ways which organize both cognition and emotion . . . the acquisition of 'knowledge' is an active change brought about by experiential problem solving situations" (Kohlberg and Mayer, 1972).

2.5 The philosophical basis of education proposed is one that best "recognizes the dignity and worth of all individuals, that allows every individual to develop to [his/her] fullest, and that teaches the virtues of democracy by establishing a democratic atmosphere" (Dewey in Archambault, 1964, pp. 189-190).

## 3. GOALS FOR HIGH SCHOOL EDUCATION

High school education should:

3.1 develop critical as well as cultural literacy. Educators and society need to recognize that a generation which is the product of recent affluence, commercialism, and media influence cannot be schooled and educated in the ways of the past. New cultural forces and domestic realities require that schools address the social, political and environmental problems found in different cultures (Bowers, 1987; Brixley and Westerberg, 1990).

3.2 integrate theory and practice in instruction to provide more concrete experiences for students. Each student needs to be provided with the opportunity to realize his/her potential. In this context, the school environment needs to promote the concept of cultural literacy for life--a lifelong process of learning which assists students in coping with the need for continual growth in knowledge, skills and understanding of the culture in which they live. The emphasis will need to be on the application of knowledge to real situations rather than on the acquisition of factual knowledge (Piaget, 1952; Dewey, 1952; Bruner, 1973).

3.3 assist students in developing effective language skills including speaking, listening, reading, viewing and writing, as well as other communicative skills such as thinking, reflecting and negotiating. To help them understand their physical and social realities, students need communicative competence--"the ability to negotiate meaning instead of passively accepting social realities established by others" (Bowers, 1987, p. 2).

3.4 help students learn how to use language for learning (Vygotsky, 1986; Lipman, 1990; Britton, 1970).

3.5 help students learn to use technology to learn.

3.6 help students develop their intellectual, academic, emotional, spiritual, social, esthetic, and physical abilities.

3.7 help students develop productive thinking strategies. The direct teaching of thinking strategies allows students the flexibility to transfer knowledge, skills and processes to diverse situations, as well as promoting their ability to articulate understanding, to express feelings, to ask imaginative questions, and to discriminate wisely among choices (Berger, 1987; Costa, 1990, Resnick, 1987).

3.8 provide students with opportunities to learn and experience good citizenship, self-reliance and self-esteem.

3.9 help students learn how to work cooperatively and collaboratively, accept responsibility, and understand the consequences of their actions in order to comprehend the global aspect of their environment (Slavin).

3.10 provide opportunities to develop behaviours such as perseverance, flexibility and adaptability (Costa, 1990). Adolescents need to know how to cope with change because the society in which they live is characterized by change.

3.11 help students cope with change and provide them with opportunities to develop skills in identifying and solving problems, as well as the ability to apply past knowledge to new situations, to communicate competently, to make use of all their senses, to explore the full potential of the human mind, and to enjoy and use the creative possibilities of wonder, curiosity and imagination in order to adapt to challenges students will face in a constantly evolving society (Costa, 1990; Isner, 1991).

## 4. AN EFFECTIVE LEARNING ENVIRONMENT

The possibility of schools being able to respond to the needs of students in today's rapidly changing world, to build on the abilities and characteristics of adolescents, and to move towards the realization of educational goals, requires leadership and vision. Schools need to work towards making the modifications outlined below to create an atmosphere that will encourage students to apply their learning potential.

4.1 To enhance the effectiveness of the physical or psychological aspects of the learning environment, schools will need to concentrate on making classrooms more:

- student-centred as opposed to teacher-centred, focusing on student interests, input, and ideas in discussions and activities rather than those of the teacher;
- dependent on student initiative;
- open to innovation, continually drawing on new materials, ideas and resources, including the expertise of people in the community, and making non-academic and interdisciplinary connections;
- supportive of co-curricular activities;
- proficient in the use of a variety of materials, resources, media and equipment, in the discussion of complex ideas, in the application of sophisticated methods and in the performance of challenging tasks;
- accepting of differences, encouraging teachers and students to attempt to understand each other's ideas, opinions and perspectives before making value judgments about them;
- conducive to risk-taking;
- mobile, allowing and encouraging movement in and out of desks, classrooms, and the school.

4.2 In addition, the development of an effective learning environment requires that schools value and work towards:

4.2.1 meeting the intellectual needs of students by:

- recognizing that all students are thinkers;
- recognizing that all students possess unique strengths and bring the richness of their own cultural heritage to the learning environment;
- providing students with opportunities to perform at their optimal level;
- emphasizing the spirit of inquiry;

- emphasizing the process approach to learning through a variety of strategies;
- promoting personal intellectual growth by encouraging the journey through knowledge as a reward in itself;
- recognizing the learner's developmental readiness and sequence.

4.2.2 meeting the aesthetic potential of students by:

- enabling students to make use of all their senses;
- providing for the creative needs of students;
- encouraging the use of the imagination;
- providing experiences in a wide range of aesthetic areas;
- providing a place and resources for students to discover the sense of wonder, the joy of the imagination, and the pleasures of the fine arts.

4.2.3 creating in students a sense of the community by:

- emphasizing the global, international and interdependent nature of society;
- helping students develop their understanding of culture and the impact it has on beliefs;
- helping students understand that individual development is rooted in society and culture;
- promoting parental and community involvement with the school.

4.2.4 preparing students for life and work by:

- ensuring equitable access to technological tools so that neither students nor teachers are denied opportunities;
- promoting the development of personal qualities such as self-respect, self-acceptance, a sense of purpose, flexibility in the pursuit of goals, autonomy and ethical values;

- integrating technology into teaching and learning, recognizing the impact of technology on human life and on the life of the planet;

- providing opportunities in identifying and solving problems, and in applying past knowledge to new situations;

- attending to their psycho-social needs.

4.2.5 providing practical and relevant instruction by:

- utilizing a variety of teaching models appropriate for the needs of students;

- promoting active learning by providing opportunities to solve problems using information, concepts and types of understanding necessary to cope with real-life situations;

- providing for concrete problem-solving applications;

- providing for a variety of learning models and styles reflective of the unique differences among students;

- using a variety of methods and tools of formative and diagnostic assessment;

- encouraging an interdisciplinary approach.

## 5. RECOMMENDED PROCESS FOR IDENTIFYING AN EFFECTIVE LEARNING ENVIRONMENT

Manitoba Education and Training recognizes that school divisions and local educational authorities have the mandate and responsibility to address those areas that relate to the learning environment. Strategy 2 of Answering the Challenge proposes that all school divisions and local educational authorities have in place a plan of action for the maintenance and enhancement of an effective learning environment for their schools, based on the criteria developed by the Department in consultation with all the partners in the educational system. Having carried out this consultative process, the Department recommends that each school division include the following in its plan of action:

5.1 A process to provide up-to-date information to assist in the establishment of division-wide improvement goals in the following areas:

- setting goals and standards;
- managing curriculum and program;
- assuring quality, in particular, with reference to an emphasis in instruction relating to higher order thinking skills;
- allocating resources;
- creating a positive work environment;
- making improvements in the classroom; and
- working in partnership with parents and the community.

5.2 A process to assess strengths and weaknesses of the learning environment in the schools in its jurisdiction.

5.3 A plan, including specific strategies, to indicate how the division intends to reduce the discrepancies, if any, between the existing conditions and the goals of the division.

5.4 An indication of the relationship between the division's plans for enhancing the learning environment and the goals and objectives of the prescribed provincial program and the Mission Statement of Manitoba Education and Training, Building a Solid Foundation For Our Future: A Strategic Plan 1991-96 (Appendix A).

5.5 Proposed strategies for assessing the effectiveness of the division's plan to improve the learning environment of its schools.

5.6 A procedure for involving all high school staff in a locally determined process of:

5.6.1 examining their school's mission statement and/or goals;

5.6.2 assessing the existing learning environment of the school;

5.6.3 identifying strengths and shortcomings of the existing learning environment;

5.6.4 developing a plan for implementing the proposed learning environment;

5.6.5 using the list of characteristics of an effective learning environment identified in section 4 of this document as a guide to meaningful planning;

5.6.6 developing strategies to maintain and enhance the desired learning environment;

5.6.7 establishing a procedure for ongoing evaluation and feedback.

## REFERENCE LIST


Archambault, R.D. (Ed.) (1964). "My Pedagogic Creed." John Dewey on Education. Selected Writings. New York, NY: Random House.

Barrow, R. (1983). Language and Thought: Re-Thinking Language Across the Curriculum. London, ON: The University of Western Ontario.

Berger, Peter L., Bridgette Berger, and Hansfried Kellner. (1974). The Homeless Mind: Modernization and Consciousness. New York: Vintage Books.

Berger, M.I. (1966). "John Dewey and Progressive Education Today." Dewey on Education: Appraisals. R.D. Archambault, ed. New York, NY: Random House.

Berger, Peter, and Thomas Luckmann. (1967). The Social Construction of Reality. New York: Garden City, Anchor Books.

Beyer, B. (1987). "Practical Strategies for the Direct Teaching of Thinking." In Costa (Ed.) Developing Minds. Alexandria, VA: ASCD.

Bolton, Gavin. (1984). Drama as Education: An Argument for Placing Drama at the Centre of the Curriculum. London: Longman.

Bowers, C.A. (1974). Cultural Literacy for Freedom. Eugene, OR: Elan Publishers.

---. (1987). The Promise of Theory: Education and the Politics of Cultural Change. New York: Teachers College Press.

Britton, J. (1970). Language and Learning. Middlesex: Penguin Books.

Brixley, Don, and Tim Westerberg. (1990, April). "Restructuring a Comprehensive High School." Educational Leadership.

Bruner, J. (1966). "After John Dewey, What?" In Dewey on Education: Appraisals. Ed. Reginald D. Archambault. New York: Random House.

---. Beyond the Information Given. (1973). New York: W.W. Norton and Co.

Buttram, Joan, Thomas B. Corcoran, and Barbara J. Hansen. (1986). Sizing up Your School System: The District Effectiveness Audit. Philadelphia, PA: Research for Better Schools.

Cole, M., et al., eds. (1978). L. Vygotsky: Mind in Society. Cambridge, MA: Harvard University Press.

Connecticut ASCD. (1989). "Report of the 1987-1988 Study Committee." CASCD.

Costa, A. (1984). Developing Minds. Alexandria, VA: Association for Supervision and Curriculum Development.

---. (1990). "School As a Home for the Mind." Presentation to the Critical Thinking Conference. San Francisco, CA.

Courtney, Richard. (1980). The Dramatic Curriculum. London, ON: University of Western Ontario.

Dewey, J. (1916). Democracy and Education. New York: Macmillan.
---. (1938). Education and Experience. New York: Macmillan.

---. (1968). Problems of Men. New York: Greenwood Press.

Dusewicy, Russell A., and Francine S. Beyer. (1988). Dimensions of Excellence Scales: Survey Instruments for School Improvement. Philadelphia, PA: Research for Better Schools.

Eisner, E. (1991, April). "What Really Counts in School." Educational Leadership.

Erickson, E.H. (1963). Childhood and Society. 2nd ed. New York: W.W. Morton.

---. (1968). Identity, Youth and Crisis. New York: W.W. Morton.

Furth, G. (1970). Piaget for Teachers. Englewood Cliffs, NJ: Prentice-Hall Inc.

Goodlad, J. (1983). A Place Called School: Prospects for the Future. New York: McGraw-Hill.

Kohlberg and Mayer. (1972, November). "Development as the Aim of Education." Harvard Education Review 42: 454-55.

Manitoba Education. (1988). High School Education: Challenges and Change: The Report of Manitoba's High School Panel. Winnipeg, MB: Manitoba Education. 11-13.

Manitoba Education and Training. (1990). Answering the Challenge: Strategies for Success in Manitoba High Schools. Winnipeg, MB: Manitoba Education and Training.

---. (1991). Building a Solid Foundation For Our Future: A Strategic Plan 1991-96. Winnipeg, MB: Manitoba Education and Training.

McGrail, Janet, Bruce L. Wilson, Joan L. Buttram, and Gretchan B. Rossman. (1987). Looking at Schools: Instrument and Processes for School Analysis. Philadelphia, PA: Research for Better Schools.

Mosher, Ralph L., ed. (1979). Adolescents' Development and Education. Boston: McCutchan Publishing.

Phillips, J. (1969). The Origins of Intellect: Piaget's Theory. San Francisco: W.H. Freeman and Co.

Presseisen, B. (1986). Thinking Skills: Research and Practice. Washington: NEA.

Quellmalz, E. (1987). "Developing Reasoning Skills." In Teaching Thinking Skills: Theory and Practice. Ed. Baron and R. Sternberg. New York: W.H. Freeman and Co.

Resnick, L. (1987). Education and Learning to Think. Washington, DC: National Academy Press.

Rice, Philip. (1981). The Adolescent: Development, Relationships, Cultures. 3rd ed. Boston: Allyn & Bacon.

Rockler, M. (1989, February 18-22). "Teaching Thinking Skills for the Twenty-First Century." Paper. Annual Meeting of the Association of Teacher Educators. St. Louis, MO.

Ruggiero, V. (1988). Teaching Thinking Across the Curriculum. New York: Harper and Row.

Schrag, F. (1988). Thinking in School and Society. New York: Routledge Co.

Smart, M. and R. Smart. (1978). Adolescents' Development and Relationships. New York: McMillan.

Statistics Canada. (1985). Canada Year Book 1985. Ottawa: Statistics Canada.

Sternberg, R. (1981, October). "Intelligence as Thinking and Learning Skills." Educational Leadership, 18-20.

---. (1984). Beyond IQ: A Triarchic Theory of Human Intelligence. New York, NY: Cambridge University Press.

Swartz, R., and D. Perkins. (1989). Teaching Thinking: Issues and Approaches. Pacific Grove, CA: Midwest Publications.

Vygotsky, L. (1986). Thought and Language. Trans. and rev. A. Kouzulin. Cambridge, MA: Massachusetts Institute of Technology Press.

Wilson, Bruce L., William A. Firestone, and Robert E. Herriott. (1985). School Assessment Survey: A Technical Manual. Philadelphia, PA: Research for Better Schools.

Wilson, Bruce L., and Janet McGrail. (1987). Measuring School Climate: Questions and Considerations. Philadelphia, PA: Research for Better Schools.

Youniss, J. and J. Smollar. (1986). Adolescent Relations with Mothers, Fathers and Friends. Chicago: Univ. of Chicago Press.

## APPENDIX A

## MISSION STATEMENT

The mission of Manitoba Education and Training is to ensure high quality education and training programs for Manitobans to enable them to develop their individual potential and contribute to the economic, social and cultural life of Manitoba.

In carrying out its mission, the Department is guided by the following principles:

- Excellence - providing a climate for education and training that fosters dedication, determination, creativity, initiative and high achievement.
- Equity - ensuring fairness and providing the best possible learning opportunities for Manitobans regardless of background or geographic location.
- Openness - being receptive to ways of thinking and acting that result in on-going renewal, and meaningful involvement of people in decision making.
- Responsiveness - meeting the education and training needs of individuals by taking into consideration personal background, individual characteristics and geographic location.
- Choice - providing alternatives to meet diverse learning needs and interests.
- Relevance - providing education and training that is current and meaningful to students.
- Integration - connecting components within and between education and training and social and economic systems in order to increase the effectiveness and efficiency of programs and services.
- Accountability - ensuring that the expected educational outcomes are realized through effective and efficient use of resources.

September 5, 1991